



US Army Corps
of Engineers
Portland District

PUBLIC NOTICE

for PERMIT APPLICATION

Issue Date: September 4, 2008

Expiration Date: October 6, 2008

Corps of Engineers Action ID: NWP-2005-587

Oregon Department of State Lands Number: 41395

30 Day Notice

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States, as described below and shown on the attached plan.

Comments: Comments on the described work should reference the U.S. Army Corps of Engineers number shown above and should reach this office no later than the above expiration date of this Public Notice to become part of the record and be considered in the decision. Comments should be mailed to the following address:

U.S. Army Corps of Engineers
ATTN: CENWP-OP-GP (Ms. Jaimee W. Hammit)
P.O. Box 2946
Portland, Oregon 97208-2946

Applicant: ODOT - Region 2

Location: U.S. Highway 101 approximately 0.5 mile south of the Siletz River Bridge, near Kernville, Lincoln County, Oregon (Section 10, Township 8 South, Range 11 West)

Project Description: The applicant proposes to construct a new, longer 4-lane bridge to adjoin the existing 2-lane U.S. 101 highway. Specifically, the new bridge would be 330 feet long and would replace the existing 210 foot long structure. The new bridge would be shifted slightly downstream to avoid sensitive fishery areas and scattered eelgrass (*Zostera marina*) beds. The new 4-span bridge would be supported by 2 end bents and 3 interior concrete bents, having 8-10 pilings each. After construction, the new bridge deck will accommodate 4 travel lanes and shoulders with raised curbs to meet current minimum safety and design standards for cars, trucks, bicycles and pedestrians. New concrete railing will be constructed along the widened bridge. The new bridge will be 68 feet wide at completion, compared to the existing 35-foot wide structure. The existing 42 in-water pilings will be pulled out or broken below the ground line of the subtidal channel, as part of the bridge removal process. Finally, the applicant proposes to excavate toe trenches and install Class 2000 riprap to protect the bridge from scour forces.

The Siletz Bay occurs within the Cascadia Subduction Zone with 500- and 1000-year hazard events. An evaluation of the highway embankment was conducted to assess the degree of induced liquefaction following an earthquake. Based on the presence of extremely deep soft sediments in the Siletz Bay, and in consideration of shear strengths of the existing embankment and underlying sediments, it was determined that a significant risk of slope movement along the approach embankments would occur during the 500- and 1000-year events. Therefore, ground

improvements are needed as part of the proposed project. The applicant can minimize the risk of liquefaction occurring below and adjacent to the bridge embankment by installing closely-spaced timber piles placed below the ground surface around the new abutments of the bridge. The timbers will be untreated wood placed on 3 to 4-foot on-center spacing within 30 feet of the new abutments. A maximum of 3,000 12-inch diameter timber piles will be installed 60 feet deep into the soft sediment of the slough. Impact hammers, such as air or diesel-driver arms, will be used to install the timber piles. Timber piles placed further out into the estuary will be driven to a minimum of 0.0 ft (1988 NAVD), which will be around 5 feet below the ground elevation of the subtidal channel. The action to install the timber piles will take place during the in-water work period. The work isolation system will contain any disturbed sediments by the pile-hammering installation. After the work is completed, no piles will be exposed, even during minus tide events.

Thirty-foot-wide temporary work bridges will be installed to support the equipment necessary to construct the new bridge and ground improvements. The applicant proposes that approximately 50 piles (either steel or untreated wood) will be needed for this portion of the project. To minimize their footprint, the applicant proposes to install the work bridge approximately 5-feet from the existing bridge. All of the piles used for this portion of the project will be removed or broken off below the ground surface upon completion of the project.

The applicant has developed a mitigation plan with 3 distinct parts to compensate for the impacts to the types of waters of the U.S. impacted for the proposed project:

1) subtidal water and intertidal mudflats, 2) intertidal low and high salt marsh, and 3) eelgrass beds. Impacts to subtidal water and intertidal mud flats are proposed to be mitigated through the restoration of the Millport Slough channel by removing 60 feet of the existing causeway fill at the bridge and removal of fill associated with a historic utility road that currently constricts flows at minus tides immediately downstream from the existing bridge. Fill be removed on each side of the channel to restore it to its historic width and allow unobstructed movement of tidal waters. Impacts to intertidal low and high salt marsh areas will be mitigated along the old U.S. 101 section at the northerly extent of the project area. Here, the roadway embankment will be removed to restore estuarine habitats in-kind with the impact areas. Impacts to eelgrass beds will be mitigated on-site through transplanting under the direction of Dr. Steve Rumrill at the South Slough National Estuarine Research Reserve.

If a permit is issued, the Corps will determine what is appropriate and practicable compensatory mitigation. The amount of compensatory mitigation required shall be commensurate with the anticipated impacts of the project.

Purpose: To replace a two-lane structurally deficient bridge with a new four-lane structure to maintain an appropriate level of service on this heavily used highway.

Drawing(s): Sixteen (16) drawings are attached.

Additional Information: Additional information may be obtained from Ms. Jaimee W. Hammit, U.S. Army Corps of Engineers at (503) 808-4390.

Authority: This permit will be issued or denied under the following:

Section 10, Rivers and Harbors Act 1899 (33 U.S.C. 403), for work in or affecting navigable waters of the United States.

Section 404, Clean Water Act (33 U.S.C. 1344), for discharge of dredged or fill material into waters of the United States.

Water Quality Certification: A permit for the described work will not be issued until certification, as required under Section 401 of the Clean Water Act (P.L. 95-217), has been received or is waived from the certifying state. Attached is the state's notice advertising the request for certification.

Section 404(b)(1) Evaluation: The impact of the activity on the public interest will be evaluated in accordance with the Environmental Protection Agency guidelines pursuant to Section 404(b)(1) of the Clean Water Act.

Coastal Zone Management Act Certification: A permit for the described work will not be issued until the state has concurred with the applicant's certification that the described activity affecting land or water uses in the Coastal Zone complies with the State Coastal Zone Management Program. Section 307(c)(3) of the Coastal Zone Management Act of 1972, as amended by 16 U.S.C. 1456(c)(3) requires the applicant to provide a Certification of Consistency statement. If the state fails to concur or object to the certification statement within six months, state concurrence shall be conclusively presumed. Attached to this Public Notice is a notice of application for Certification of Consistency with the State's Coastal Zone Management Program.

Public Hearing: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

Endangered Species: Preliminary determinations indicate that the proposed activity may affect an endangered or threatened species or its critical habitat. Consultation under Section 7 of the Endangered Species Act of 1973 (87 Stat. 844) will be initiated. A permit for the proposed activity will not be issued until the consultation process is completed.

Cultural Resources: ODOT archaeologist Kurt Roedel reviewed the maps on file at SHPO to determine the presence of archaeological resources studies and recorded archaeological sites in the project area. No previous archaeological resources studies have been conducted in the project area and no archaeological sites have been recorded in the project area.

Mr. Roedel contacted Robert Kentta of the Confederated Tribes of the Siletz Indians during the pre-application phase in 2008 regarding the proposed project. No comments were received.

This notice has been provided to the State Historic Preservation Office, interested Native American Indian Tribes, and other interested parties. If you have information pertaining to cultural resources within the permit area, please provide this information to the Corps project manager (identified on page 1 of this notice) to assist in a complete evaluation of potential affects.

Evaluation: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the described activity on the public interest.

That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the described activity, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the described activity will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Additional Requirements: State law requires that leases, easements, or permits be obtained for certain works or activity in the described waters. These State requirements must be met, where applicable, and a Department of the Army permit must be obtained before any work within the applicable Statutory Authority, previously indicated, may be accomplished. Other local governmental agencies may also have ordinances or requirements, which must be satisfied before the work is accomplished.

PUBLIC NOTICE
Oregon Department of Environmental Quality (DEQ)
Water Quality 401 Certification

Corps of Engineers Action ID Number: NWP-2005-587
Oregon Department of State Lands Number: 41395

Notice Issued: September 4, 2008
Written Comments Due: October 6, 2008

WHO IS THE APPLICANT: ODOT - Region 2

LOCATION OF CERTIFICATION ACTIVITY: See attached U.S. Army Corps of Engineers public notice

WHAT IS PROPOSED: See attached U.S. Army Corps of Engineers public notice on the proposed project

NEED FOR CERTIFICATION: Section 401 of the Federal Clean Water Act requires applicants for Federal permits or licenses to provide the Federal agency a water quality certification from the State of Oregon if the proposed activity may result in a discharge to surface waters.

DESCRIPTION OF DISCHARGES: See attached U.S. Army Corps of Engineers public notice on the proposed project.

WHERE TO FIND DOCUMENTS: Documents and related material are available for examination and copying at Oregon Department of Environmental Quality, 401 Water Quality Certification Coordinator, Northwest Region, 2020 S.W. 4th Avenue, Portland, Oregon 97201-4953.

While not required, scheduling an appointment will ensure documents are readily accessible during your visit. To schedule an appointment please call Jan Coomler at (503) 229-5087.

Any questions on the proposed certification may be addressed to the 401 Program Coordinator at (503) 229-6030 or toll free within Oregon at (800) 452-4011. People with hearing impairments may call DEQ's TTY at (503) 229-6993.

PUBLIC PARTICIPATION:

Public Hearing: Oregon Administrative Rule (OAR) 340-48-0032 (2) states that "The Corps provides public notice of and opportunity to comment on the applications, including the application for certification, provided that the department (DEQ), in its discretion, may provide additional opportunity for public comment, including public hearing."

Written comments:

Written comments on the proposed certification must be received at the Oregon Department of Environmental Quality by 5 p.m. on October 6, 2008. Written comments should be mailed to Oregon Department of Environmental Quality, Attn: 401 Water Quality Certification Coordinator, Northwest Region, 2020 S.W. 4th Avenue, Portland, Oregon 97201-4953 or faxed to (503) 229-6957. *People wishing to send written comments via e-mail should be aware that if there is a delay between servers or if a server is not functioning properly, e-mails may not be received prior to the close of the public comment period.* People wishing to send comments via e-mail should send them in Microsoft Word (through version 7.0), WordPerfect (through version 6.x) or plain text format to 401publiccomments@deq.state.or.us. Otherwise, due to conversion difficulties, DEQ recommends that comments be sent in hard copy.

WHAT HAPPENS NEXT: DEQ will review and consider all comments received during the public comment period. Following this review, the permit may be issued as proposed, modified, or denied. You will be notified of DEQ's final decision if you present either oral or written comments during the comment period. Otherwise, if you wish to receive notification, please call or write DEQ at the above address.

ACCESSIBILITY INFORMATION: This publication is available in alternate format (e.g. large print, Braille) upon request. Please contact DEQ Office of Communications and Outreach at (503) 229-5317 or toll free within Oregon at 1-800-452-4011 to request an alternate format. People with a hearing impairment can receive help by calling DEQ's TTY at (503) 229-6993.

PUBLIC NOTICE

OREGON COASTAL MANAGEMENT PROGRAM

CONSISTENCY CERTIFICATION

Date: September 3, 2008

Corps of Engineers Action ID Number: NWP-2005-587

Oregon Department of State Lands Number: 41395

Notification

For projects subject to coastal zone review, notice is hereby given that the project is being reviewed by the Department of Land Conservation and Development (DLCD) as provided in Section 307(c) of the Coastal Zone Management Act. The applicant believes that the activities described in the attached materials would comply with and be conducted in a manner consistent with the Oregon Coastal Management Program. Project information can be made available for inspection at DLCD's Salem office.

DLCD is hereby soliciting public comments on the proposed project's consistency with the Oregon Coastal Management Program. Written comments may be submitted to DLCD, 635 Capital St. NE, Suite 200, Salem, OR 97301-2540, attention consistency review specialist. Any comments must be received by DLCD on or before the comment deadline listed in the federal notice. For further information, you may call DLCD at (503) 373-0050, ext. 250.

REVIEW CRITERIA

Comments should address consistency with the applicable elements of the Oregon Coastal Management Program. These elements include:

- Acknowledged Local Comprehensive Plans & Implementing Ordinances
- Statewide Planning Goals
- Applicable State Authorities (e.g. Removal-Fill Law and Oregon Water Quality Standards)

INCONSISTENT?

If you believe this project is inconsistent with the Oregon Coastal Management Program, your comments to DLCD should explain why you believe the project is inconsistent and should identify the Oregon Coastal Management Program element(s) in question. You should also describe how the project could be modified, if possible, to make it consistent with the Oregon Coastal Management Program.

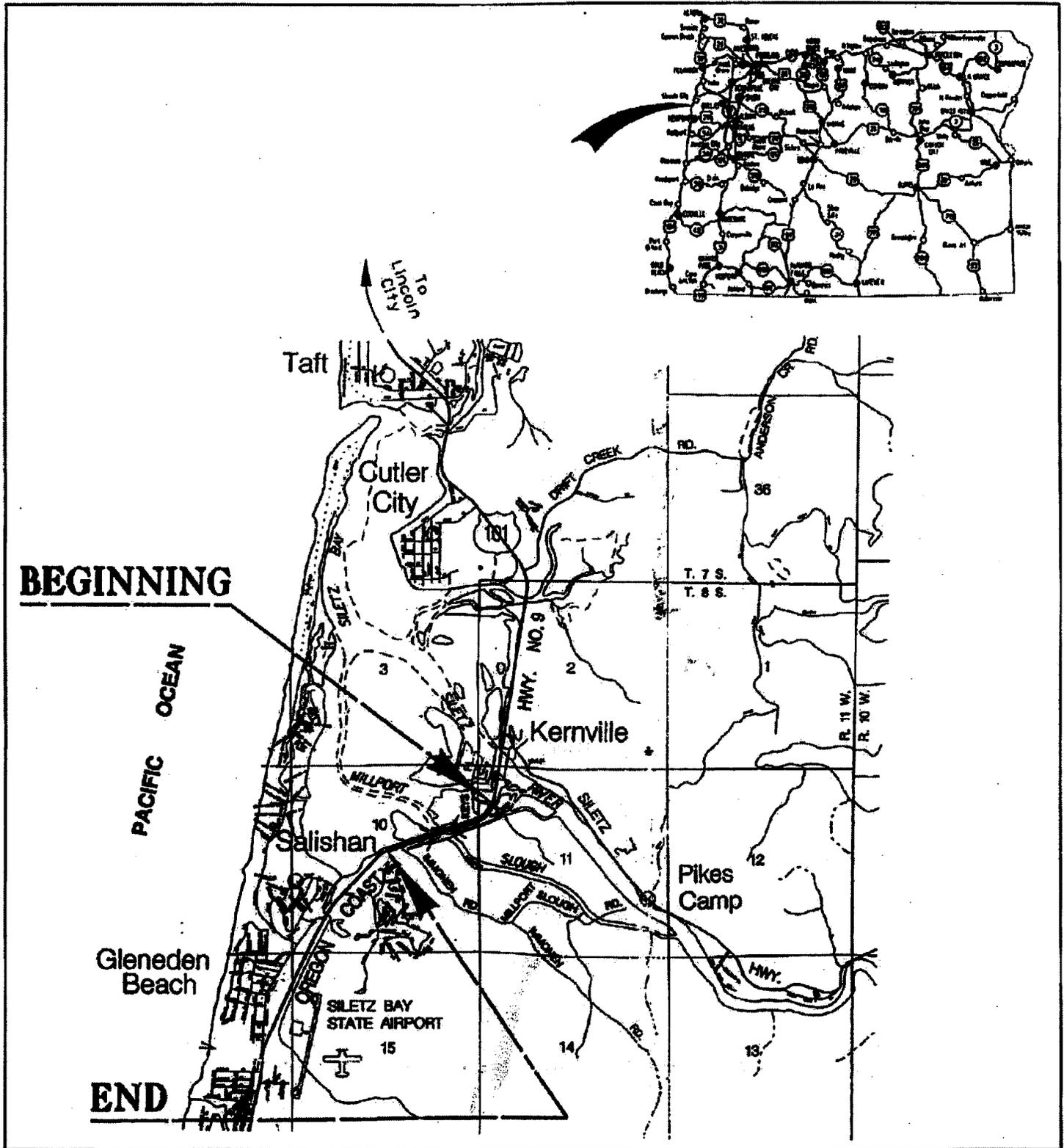


FIGURE 1
PROJECT VICINTY

OR 101: Millport Slough Bridge Replacement Section
Rural Lincoln County, Oregon
(source: ODOT, 1997)

Not To Scale



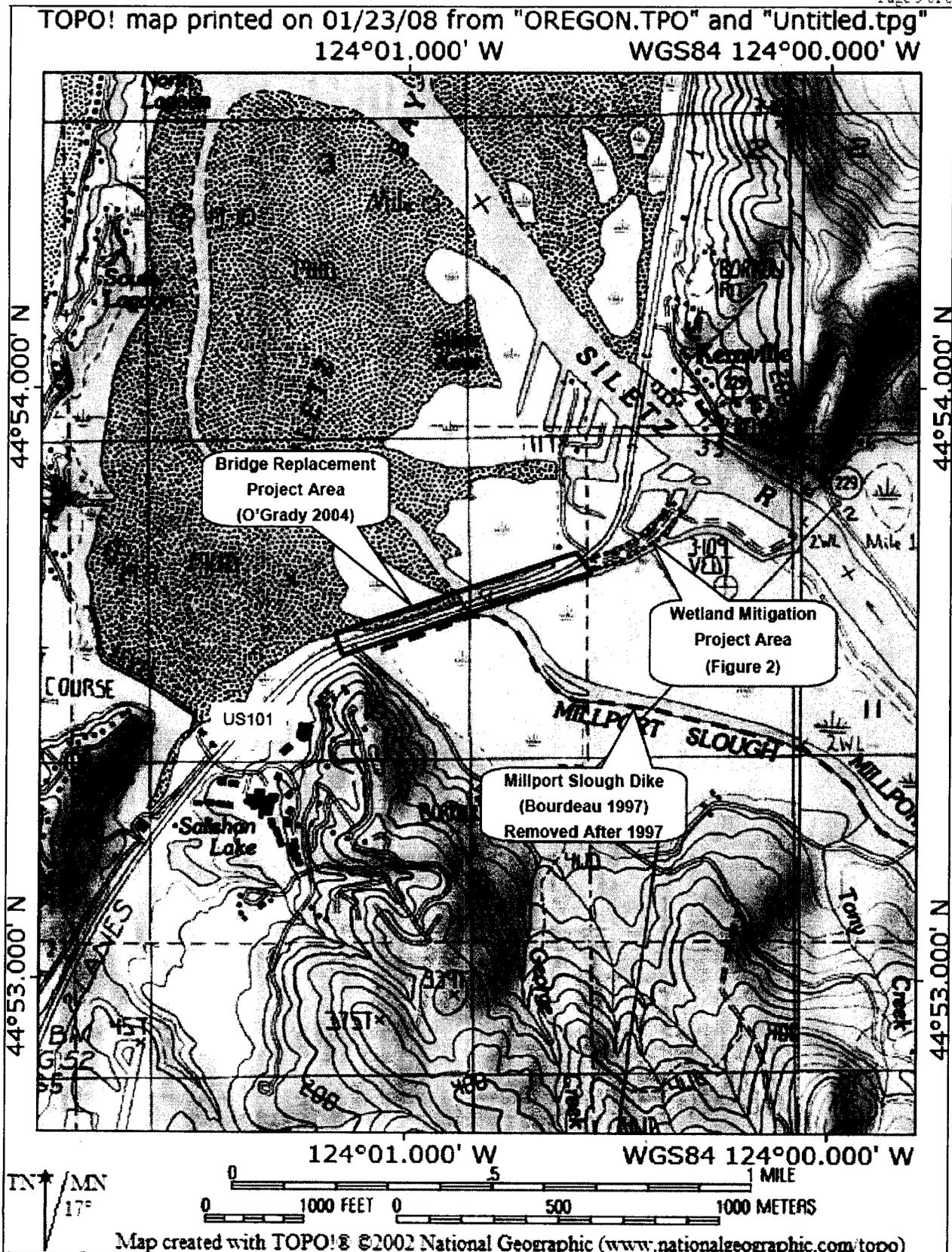


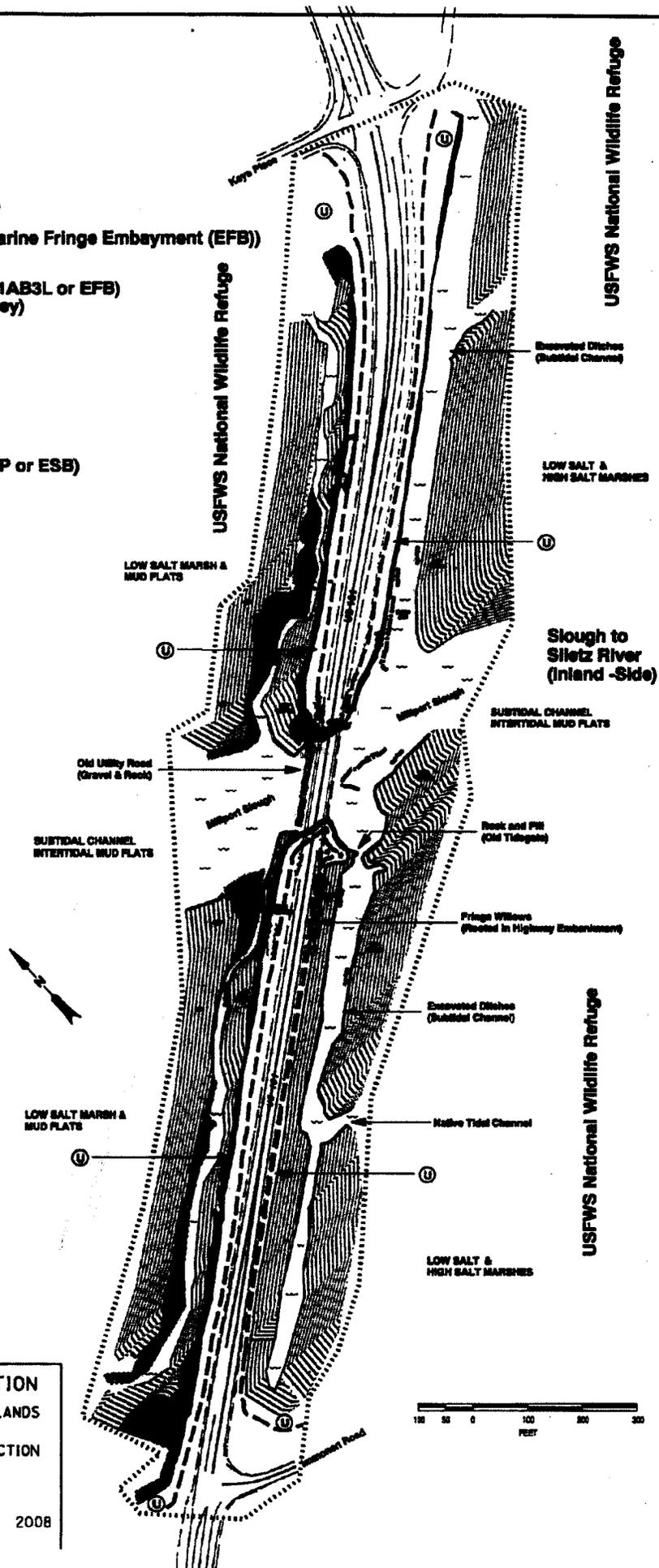
Figure 2 Approximate location of the US101: Millport Slough Bridge Replacement project area, showing the wetland mitigation project area.

LEGEND

- Project Construction Area
- Highest Measured Tide (HMT)/
High Tide Line (12.8 ft. 1988 NAVD)
-  Subtidal Channels (E1UBL or Estuarine Fringe Embayment (EFB))
-  Eelgrass (*Zostera marina*) Beds (E1AB3L or EFB)
(Based on ODOT Spring 2008 Survey)
-  Mud Flats (E2US3M or EFB)
-  Low Salt Marsh (E2EM1N or EFB)
-  High Salt Marsh (E2EM1P or EFB)
w/ fringe willows (*Salix* sp.) (E2SS1P or ESB)
-  Uplands Below HMT Elevation

Siletz Bay to Pacific Ocean
(Seaward Side)

USFWS National Wildlife Refuge

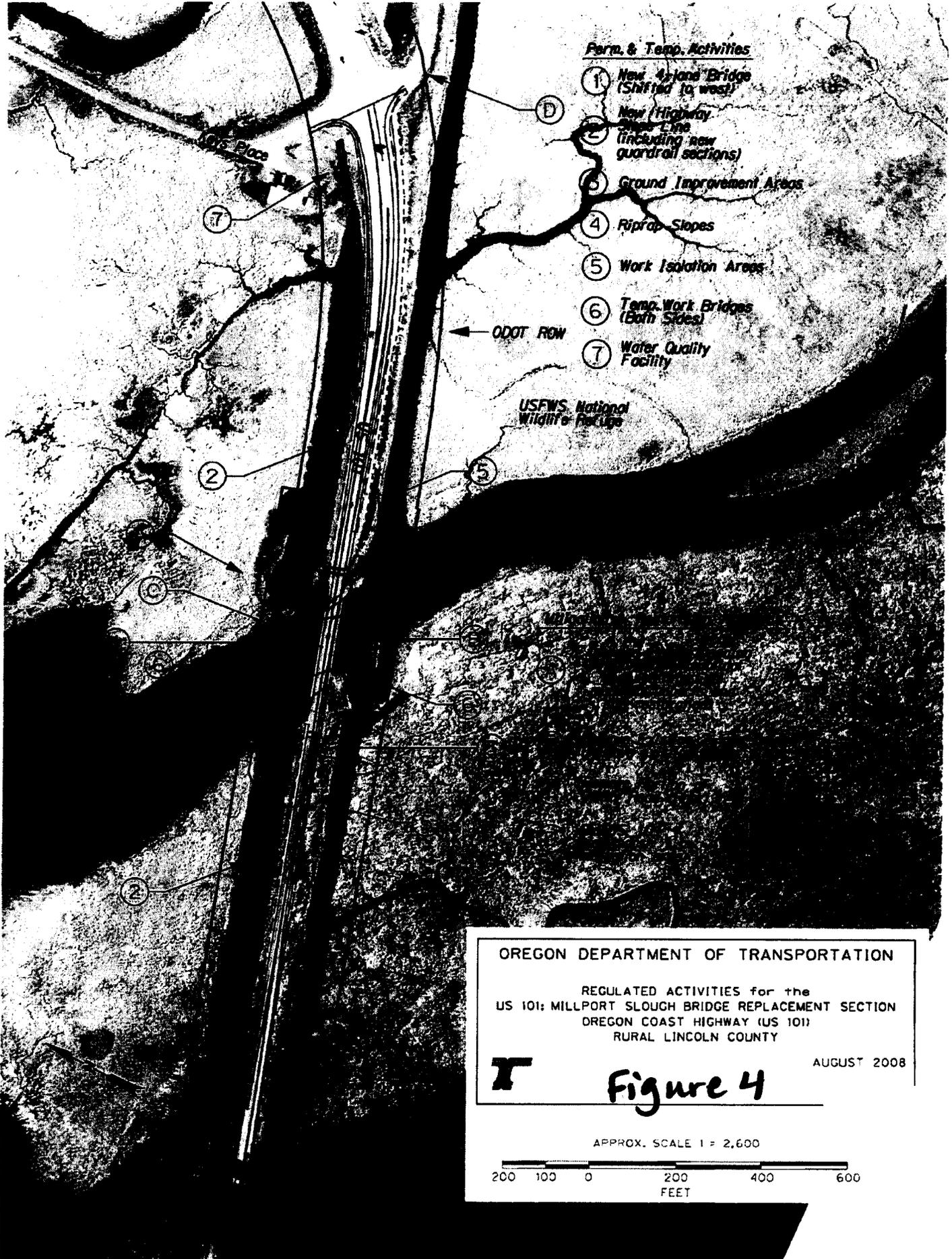


OREGON DEPARTMENT OF TRANSPORTATION
EXISTING ESTUARINE HABITATS & ADJACENT TIDE LANDS

US 101: MILLPORT SLOUGH BRIDGE REPLACEMENT SECTION
OREGON COAST HIGHWAY (US 101)
RURAL LINCOLN COUNTY

AUGUST 2008

T **Figure 3**



Perm. & Temp. Activities

- ① New 4-lane Bridge (Shifted to west)
- ② New Highway Lane Line (including new guardrail sections)
- ③ Ground Improvement Areas
- ④ Riprap Slopes
- ⑤ Work Isolation Areas
- ⑥ Temp. Work Bridges (Both Sides)
- ⑦ Water Quality Facility

OREGON DEPARTMENT OF TRANSPORTATION

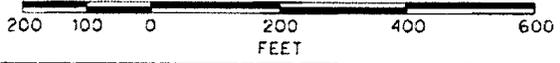
REGULATED ACTIVITIES for the
 US 101: MILLPORT SLOUGH BRIDGE REPLACEMENT SECTION
 OREGON COAST HIGHWAY (US 101)
 RURAL LINCOLN COUNTY

T

Figure 4

AUGUST 2008

APPROX. SCALE 1 = 2,600



Keys Place

Water Quality Facility

LEGEND

-  Upland Below Highest Measured Tide (HMT)
(12.8 ft. 1988 NAVD)
Cumulative Direct Impact = 0.523 ac.
(Mitigation not required)
-  Subtidal Channels (E1UBL or EFB)
Cumulative Direct Impact = 0.390 ac.
-  Mud Flats (E2US3M or EFB)
Cumulative Direct Impact = 0.044 ac.
-  Low Salt Marsh (E2EM1N or EFB)
Cumulative Direct Impact = 0.241 ac.
-  High Salt Marsh (E2EM1P or EFB)
Cumulative Direct Impact = 0.220 ac.



New Highway Toe Slope

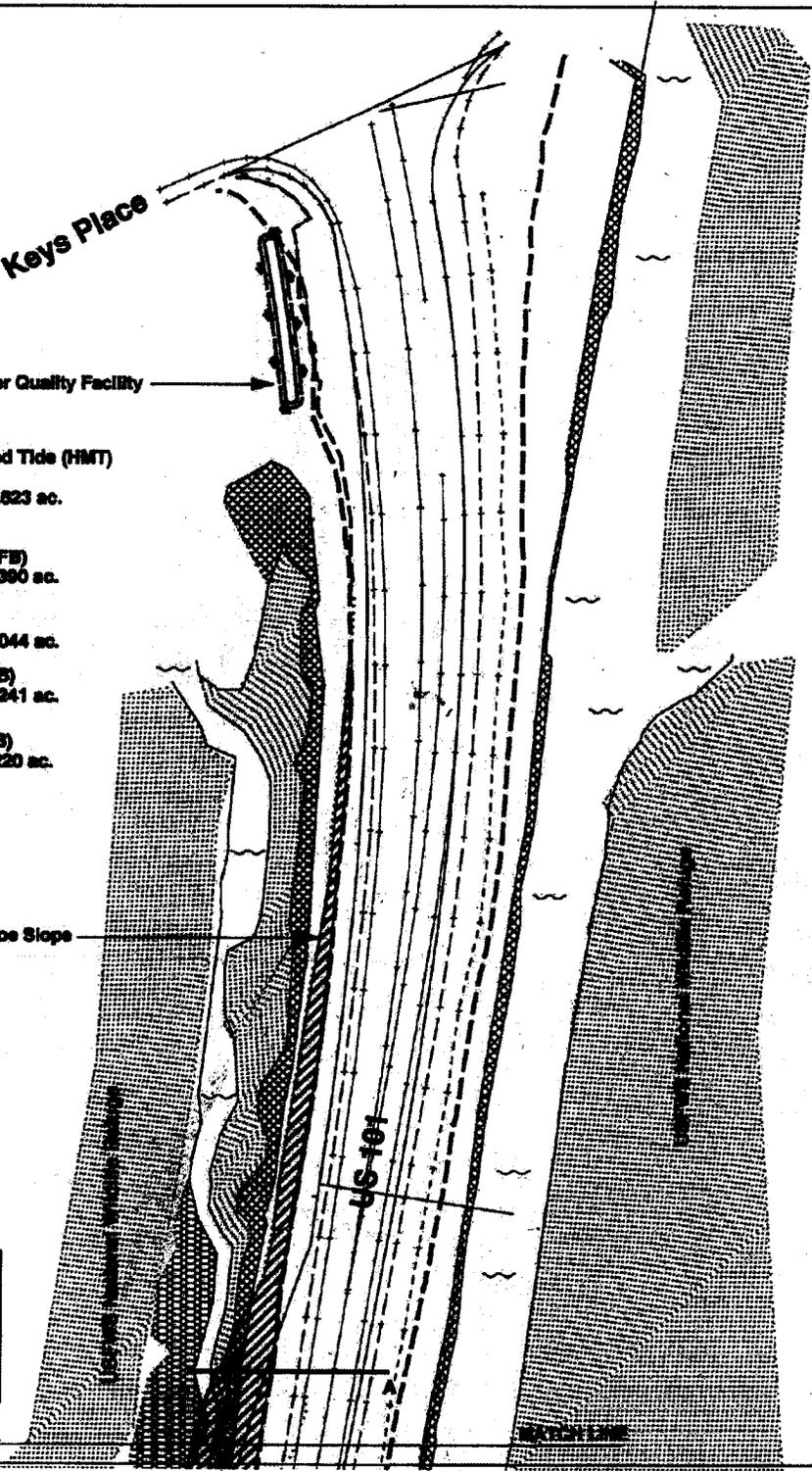


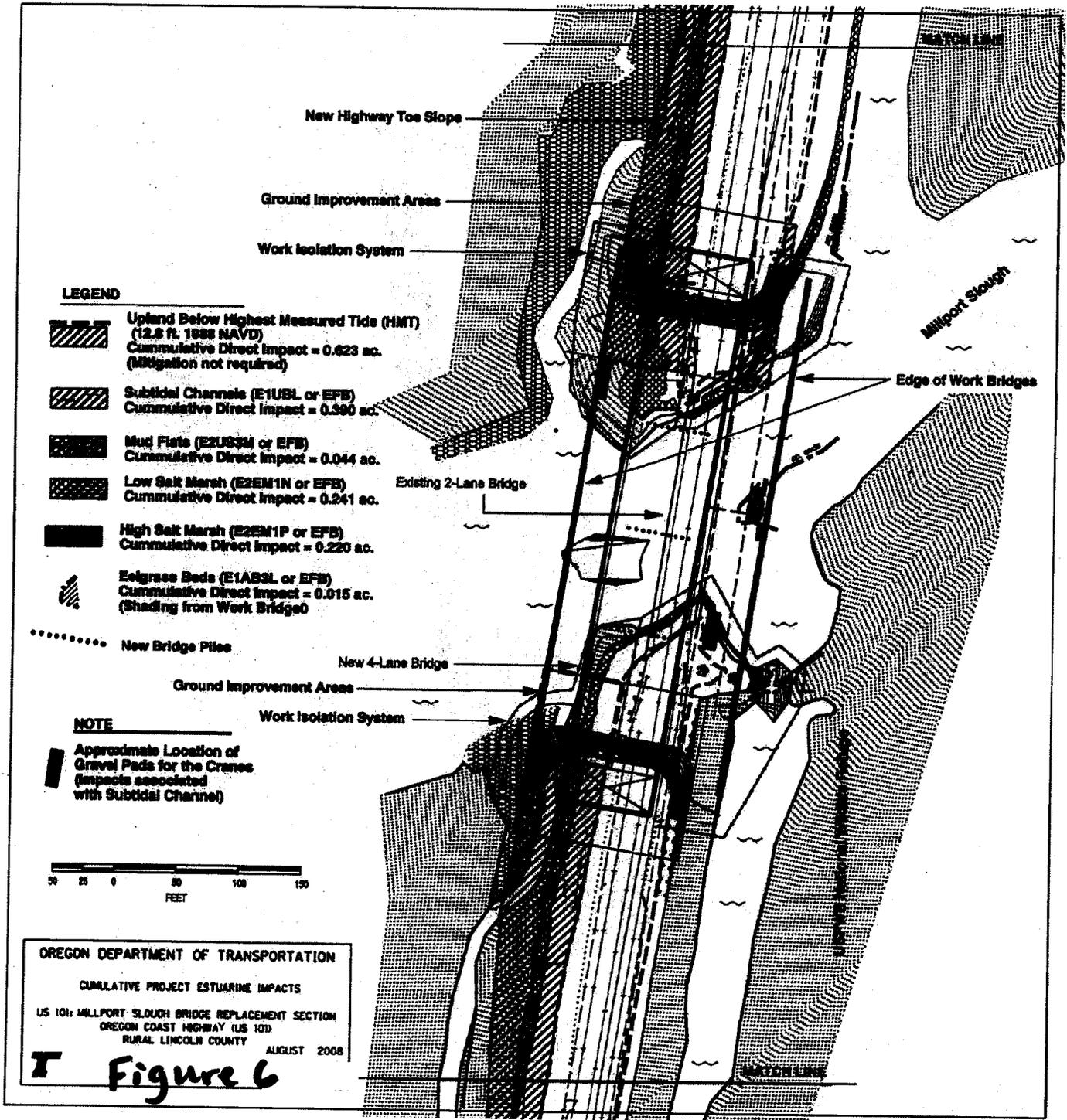
OREGON DEPARTMENT OF TRANSPORTATION

CUMMLATIVE PROJECT ESTUARINE IMPACTS

US 104: MILLPORT SLOUGH BRIDGE REPLACEMENT SECTION
OREGON COAST HIGHWAY (US 101)
RURAL LINCOLN COUNTY AUGUST 2008

T Figure 5





LEGEND

-  Upland Below Highest Measured Tide (HMT)
(12.5 ft. 1988 NAVD)
Cumulative Direct Impact = 0.623 ac.
(Mitigation not required)
-  Subtidal Channels (E1UBL or EPB)
Cumulative Direct Impact = 0.590 ac.
-  Mud Flats (E2USM or EPB)
Cumulative Direct Impact = 0.044 ac.
-  Low Salt Marsh (E2EM1N or EPB)
Cumulative Direct Impact = 0.241 ac.
-  High Salt Marsh (E2EM1P or EPB)
Cumulative Direct Impact = 0.220 ac.
-  Eelgrass Beds (E1ABS1 or EPB)
Cumulative Direct Impact = 0.015 ac.
(Shading from Work Bridge)

NOTE

 Approximate Location of Gravel Pads for the Cranes (Impacts associated with Subtidal Channel)



OREGON DEPARTMENT OF TRANSPORTATION
 CUMULATIVE PROJECT ESTUARINE IMPACTS
 US 101: MILLPORT SLOUGH BRIDGE REPLACEMENT SECTION
 OREGON COAST HIGHWAY (US 101)
 RURAL LINCOLN COUNTY AUGUST 2008

T Figure 6

LEGEND

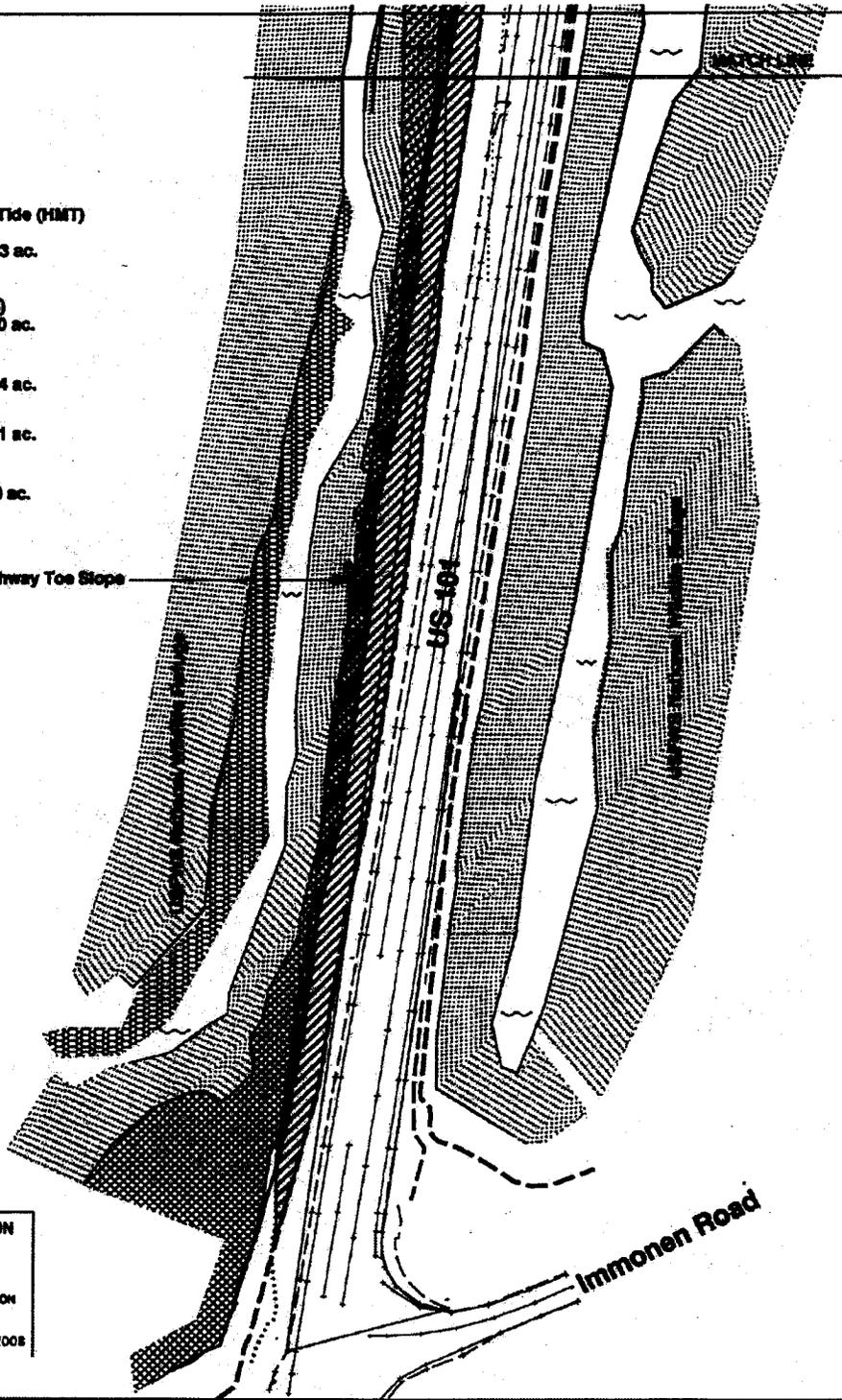
-  Upland Below Highest Measured Tide (HMT)
(12.8 ft. 1988 NAVD)
Cumulative Direct Impact = 0.623 ac.
(Mitigation not required)
-  Subtidal Channels (E1UBL or EFB)
Cumulative Direct Impact = 0.390 ac.
-  Mud Flats (E2UBSM or EFB)
Cumulative Direct Impact = 0.044 ac.
-  Low Salt Marsh (E2EM1N or EFB)
Cumulative Direct Impact = 0.241 ac.
-  High Salt Marsh (E2EM1P or EFB)
Cumulative Direct Impact = 0.220 ac.

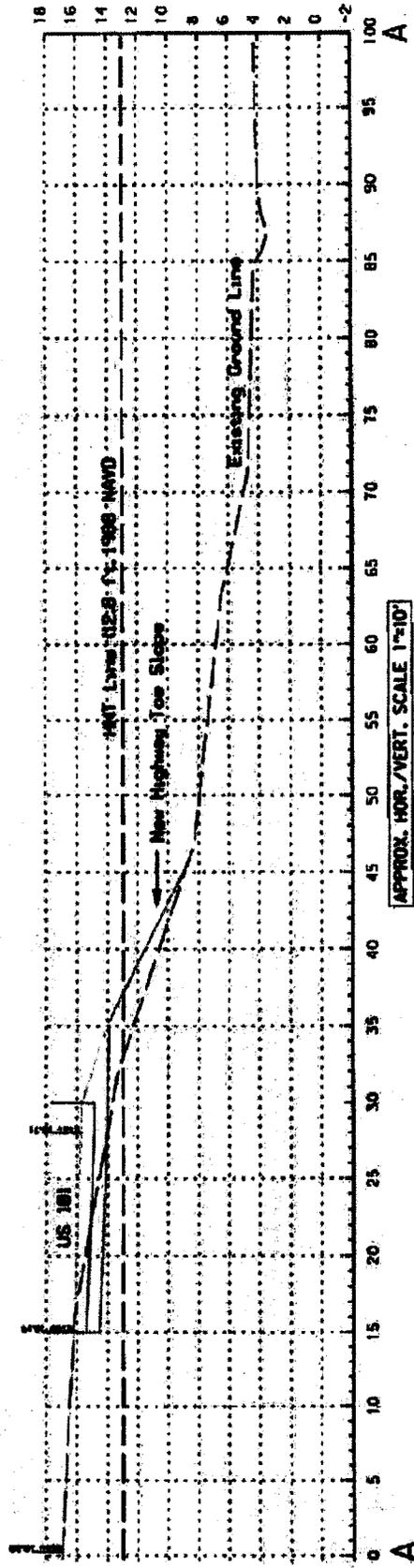
New Highway Toe Slope



OREGON DEPARTMENT OF TRANSPORTATION
CUMULATIVE PROJECT ESTUARINE IMPACTS
US 104 MILLPORT SLOUGH BRIDGE REPLACEMENT SECTION
OREGON COAST HIGHWAY US 104
RURAL LINCOLN COUNTY AUGUST 2008

I **Figure 7**





OREGON DEPARTMENT OF TRANSPORTATION

HIGHWAY WIDENING CROSS-SECTION

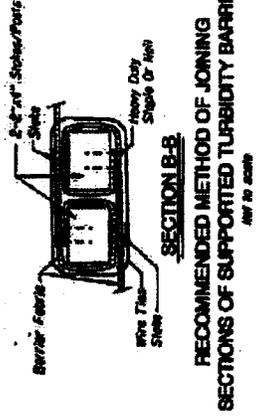
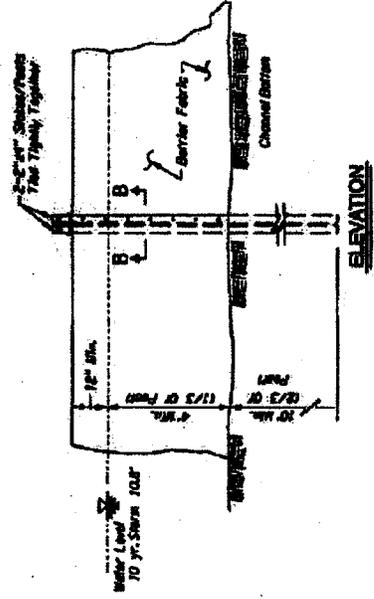
US 101 MILLPORT SLOUGH BRIDGE REPLACEMENT SECTION
 OREGON COAST HIGHWAY (US 101)
 RURAL LINCOLN COUNTY

AUGUST 2008

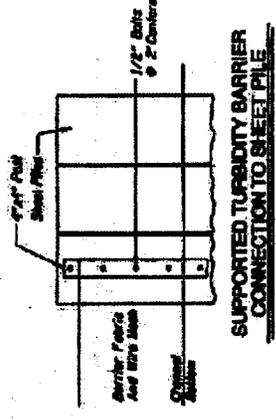
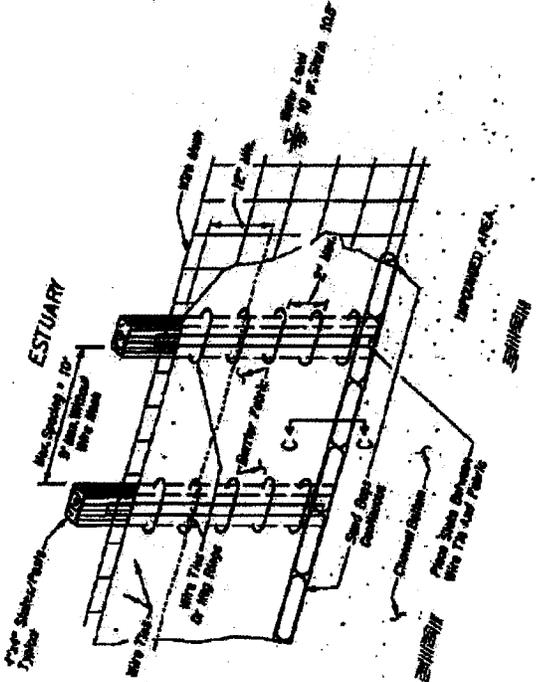
Figure 8



SUPPORTED TURBIDITY BARRIER



TYPICAL CONSTRUCTION OF SUPPORTED TURBIDITY BARRIER



GENERAL NOTES:

The Contractor, Adjustment, Installation, and Upgrading of These Erosion Control Measures is the Responsibility of the Contractor for the Duration of the Project.

Special Care Measures Shall be Taken for All Situations, Adjust or Upgrade These Measures for Unanticipated Situations to Control Soil Erosion and Sedimentation. Water shall not leave the Site.

Design a Detailed Plan of the Erosion Control Measures to be Installed by the Contractor. Design Specifications for Construction, Installation, and Maintenance of All Erosion Control Measures shall be submitted to the Engineer for Review and Approval. All Erosion Control Measures shall be installed in accordance with the approved plan.

Install Measures Within the Right of Way Unless Directed Otherwise.

Channel Stream Flows 15 Feet Downstream From the Top of Fill Slopes Where Sedimentation May be a Potential of Exceeding Waterways or Leaking the Dike.

OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
MILLPORT SLURRY, DIV. 3 MILLPORT ALUMINUM SMELT. SEC. OREGON COAST HIGHWAY LINCOLN COUNTY	
Designed by - TTT	Checked by -
Drawn by - Chris Coakley	Reviewed by -
Invented by -	Approved by -
EROSION CONTROL PLAN	



RENEWAL DATE: 12-31-2009

HWY9331

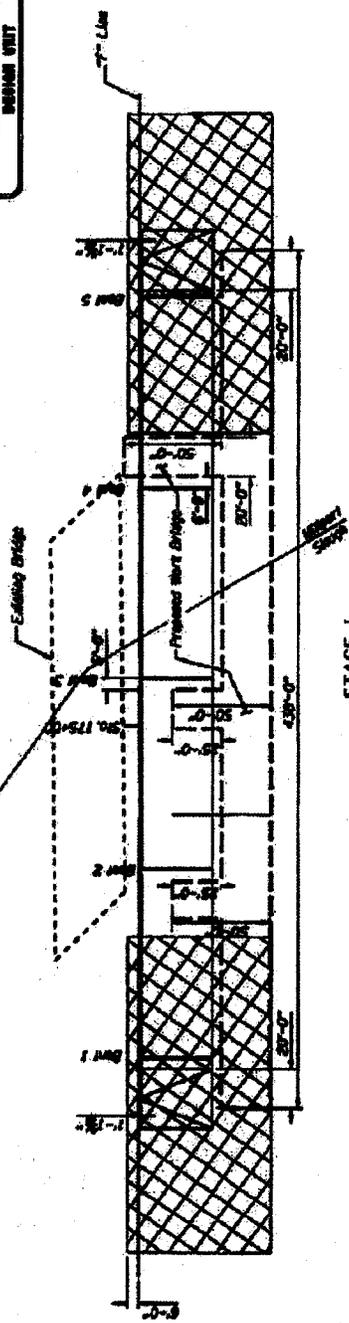
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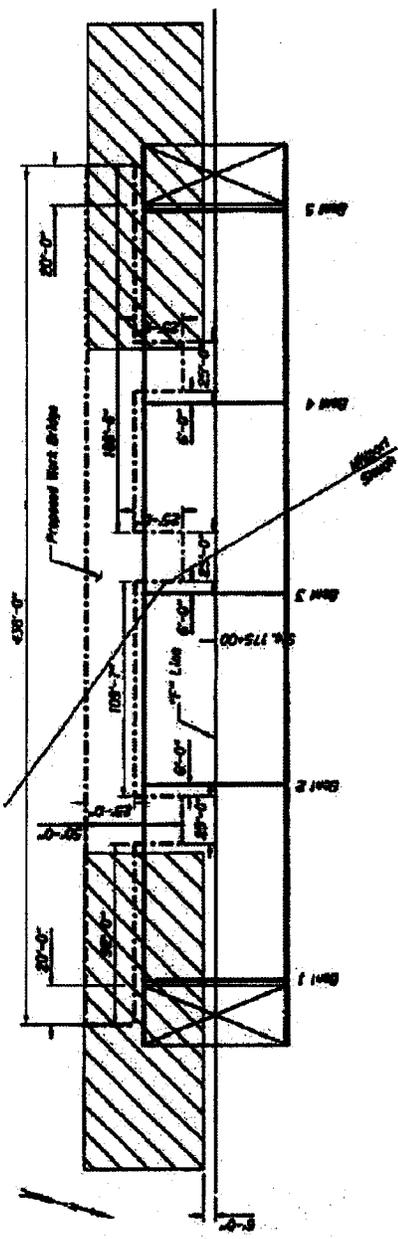
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Figure 10

PRELIMINARY PLANS
INFORMATION ONLY
 THESE DRAWINGS
 SHALL BE VOID



STAGE I
 Scale 1"=30'



STAGE II
 Scale 1"=30'

-  Step 1 Work Bridge
-  Step 2 Work Bridge
-  Step 1 Ground Improvement
-  Step 2 Ground Improvement

 OREGON DEPARTMENT OF TRANSPORTATION REGION 2 TECH CENTER		STRUCTURE NO. 00000000 DATE 0000-00-00 ROAD 0000 CALC. BOOK 0000		MILLPORT SLOUGH, HWY 9 US10; MILLPORT SLOUGH BRIDGE SEC. OREGON COAST HWY. O.A.P. 120.84 LINCOLN COUNTY		DRAWING NO. MP-S17	
 NORTH		7/22/2008 7:10:12 AM hwy03k		CONCEPTUAL WORK BRIDGE PLAN		1"=30' Concept WB	

Figure 11



Resigned US 101 and
Siletz River Bridge
(circa 1975)

USFWS Wildlife Refuge

Sub- and Intertidal Reference Site

US 101

Existing Millport Slough Bridge
(Constructed in 1941)

USFWS Wildlife Refuge

Onsite Intertidal Marsh
Mitigation Area

Intertidal Marsh Reference Site
Old Section of US 101
(Initial Construction circa 1900-1925
Abandoned circa 1975)

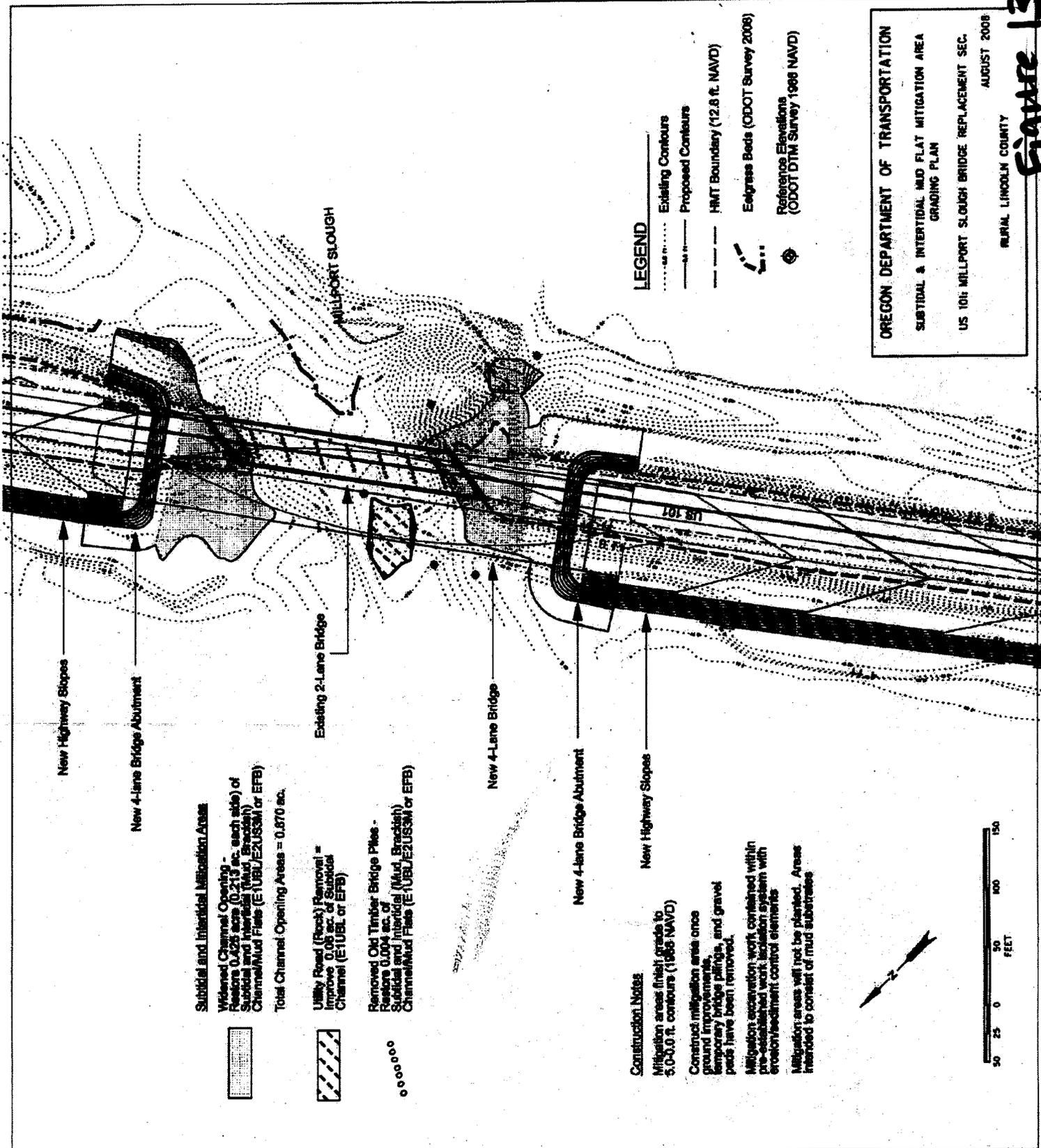
Potential Eelgrass Mitigation Area

Onsite Subtidal Channel/Intertidal Mud Flat
Mitigation Area (Channel Widening)

OREGON DEPARTMENT OF TRANSPORTATION
 PROPOSED COMPENSATORY ESTUARINE MITIGATION AREAS
 US 101: MILLPORT SLOUGH BRIDGE REPLACEMENT SECTION
 OREGON COAST HIGHWAY (US 101)
 RURAL LINCOLN COUNTY
 AUGUST 2008

Figure 12

Source: 1980 AERIAL PHOTO



-  Subtidal and Intertidal Mitigation Areas
-  Widened Channel Opening - Restores 0.425 acs (0.213 ac. each side) of Subtidal and Intertidal (Mud, Brackish) Channel/Mud Flats (E-1UBU/E2US3M or EFB)
-  Total Channel Opening Areas = 0.870 ac.
-  Utility Road (Rock) Removal = Improve 0.08 ac. of Subtidal Channel (E-1UBL or EFB)
-  Removed Old Timber Bridge Piles - Restores 0.004 ac. of Subtidal and Intertidal (Mud, Brackish) Channel/Mud Flats (E-1UBU/E2US3M or EFB)

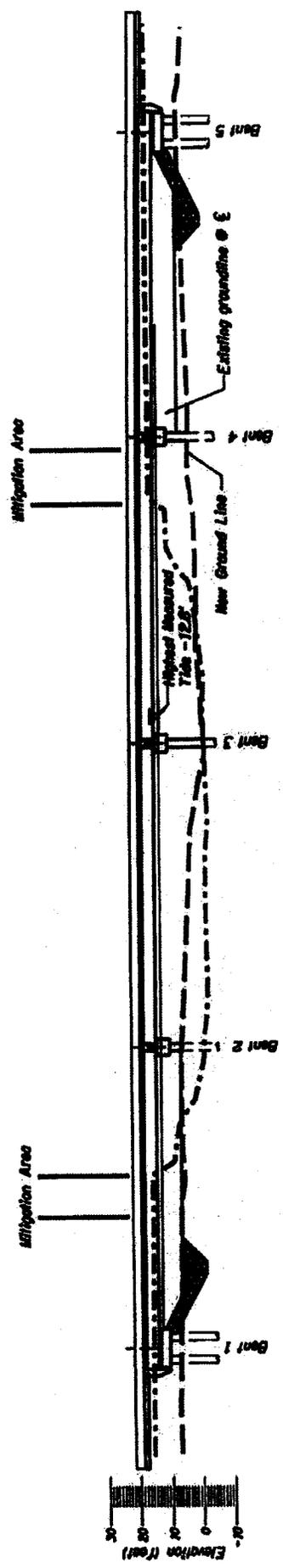
Construction Notes

- Mitigation areas finish grade to 3.0-3.0 ft. contours (1988 NAVD)
- Construct mitigation areas once ground improvements, temporary bridge piling, and gravel pads have been removed.
- Mitigation excavation work contained within pre-established work isolation system with erosion/sediment control elements
- Mitigation areas will not be planted. Areas intended to consist of mud substrates

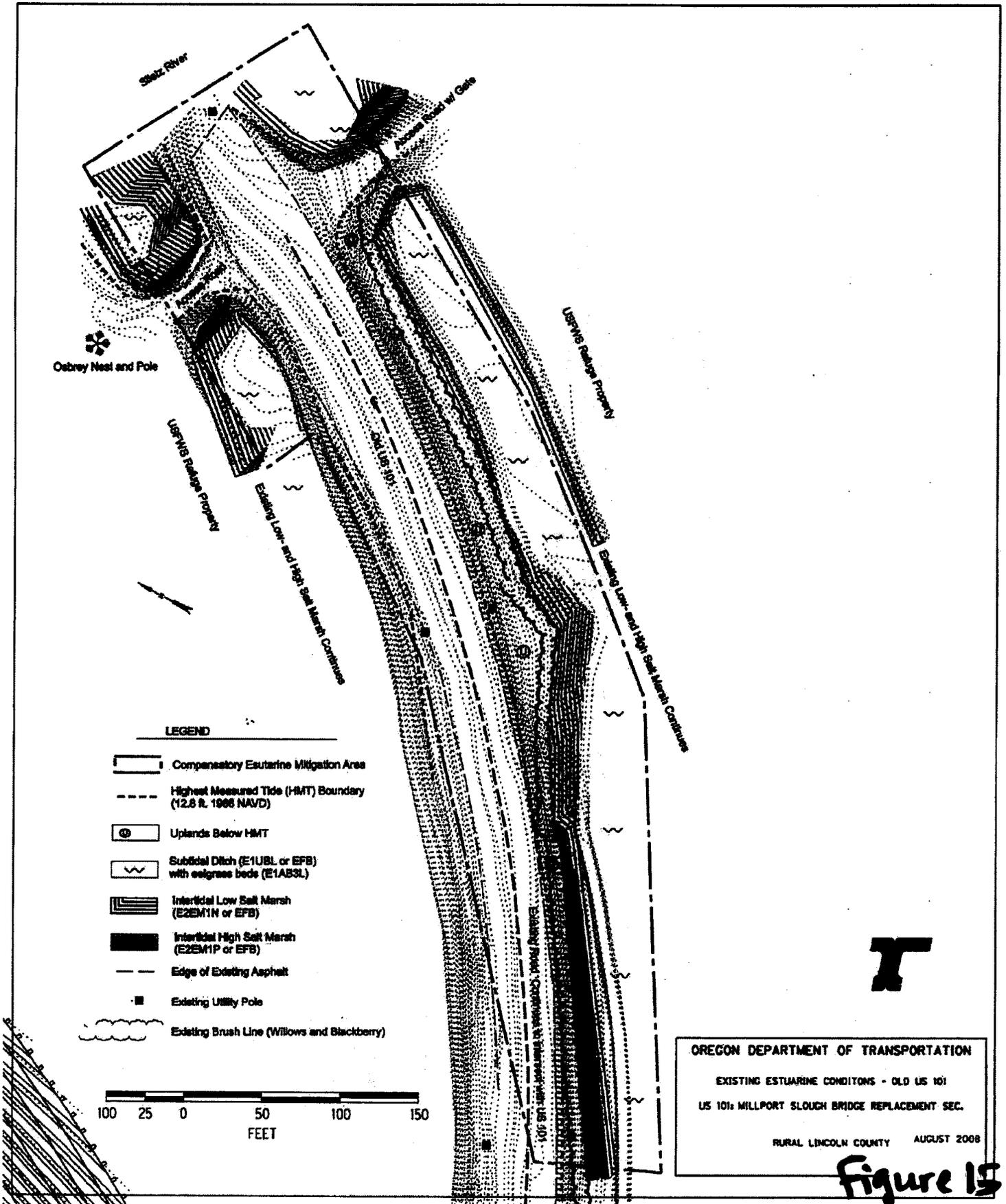
- LEGEND**
-  Existing Contours
 -  Proposed Contours
 -  HMT Boundary (12.8 ft. NAVD)
 -  Eelgrass Beds (ODOT Survey 2006)
 -  Reference Elevations (ODOT DTM Survey 1988 NAVD)

OREGON DEPARTMENT OF TRANSPORTATION
 SUBTIDAL & INTERTIDAL MUD FLAT MITIGATION AREA
 GRADING PLAN
 US 101 MILLPORT SLOUGH BRIDGE REPLACEMENT SEC.
 AUGUST 2008
 RURAL LINCOLN COUNTY

Figure 13



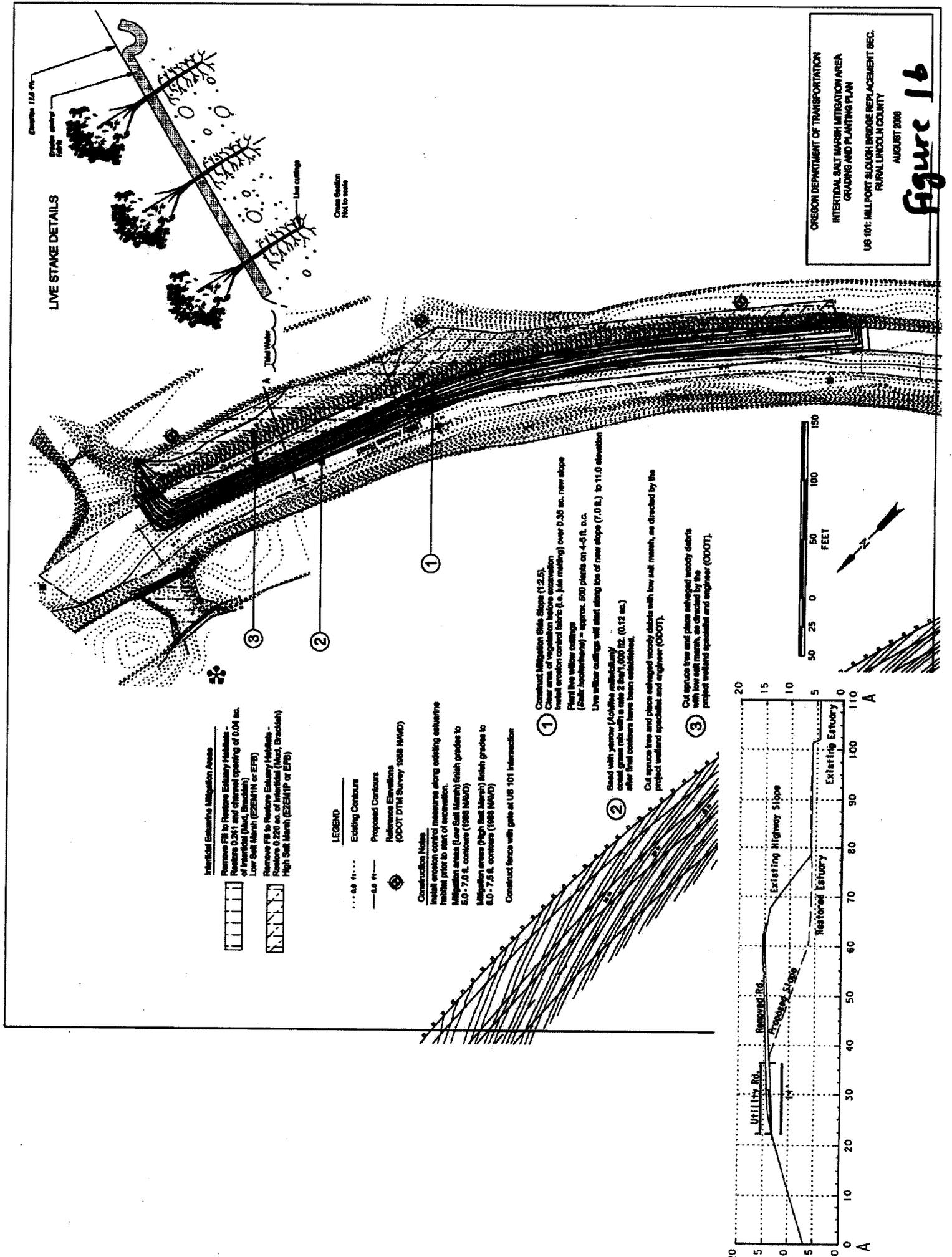
OREGON DEPARTMENT OF TRANSPORTATION
SUBTIDAL CHANNEL & INTERTIDAL MUD FLAT
CROSS SECTION
US 10+ MILLPORT SLough BRIDGE REPLACEMENT SEC.
RURAL LINCOLN COUNTY AUGUST 2008
Figure 14



OREGON DEPARTMENT OF TRANSPORTATION
 EXISTING ESTUARINE CONDITIONS - OLD US 101
 US 101: MILLPORT SLOUGH BRIDGE REPLACEMENT SEC.
 RURAL LINCOLN COUNTY AUGUST 2008

Figure 15

Figure 16



Intertidal Elevation Mitigation Areas

Remove FB to Restore Estuary Wetlands -
 Restore 0.261 ac and channel opening of 0.04 ac.
 of Intertidal (Mud, Brackish)

Low Salt Marsh (E2EM/IN or EFB)

Remove FB to Restore Estuary Wetlands -
 Restore 0.229 ac. of Intertidal (Mud, Brackish)

High Salt Marsh (E2EM/FP or EFB)

LEGEND

--- 0.5 ft --- Existing Contours

--- 0.5 ft --- Proposed Contours

Reference Elevations
 (OOOT DTM Survey 1988 NAVD)

Construction Notes

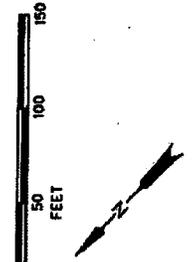
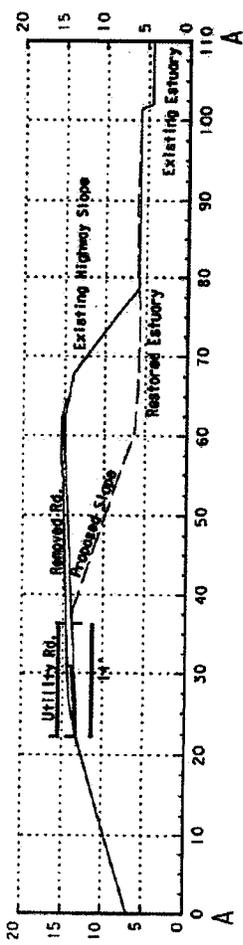
Install erosion control measures along existing estuarine habitat prior to start of construction.

Mitigation areas (Low Salt Marsh) finish grades to 5.0 - 7.0 ft contours (1988 NAVD)

Mitigation areas (High Salt Marsh) finish grades to 6.0 - 7.5 ft contours (1988 NAVD)

Construct fence with gate at US 101 intersection

- ① **Construct Mitigation Site Slope (12.5)**
 Clear area of vegetation before construction
 Install erosion control fabric (i.e. jute matting) over 0.35 ac. new slope
 Plant live willow cuttings
 (Salt Tolerant) - approx. 600 plants on 4-5 ft. c.c.
 Live willow cuttings will start along toe of new slope (7.0 ft.) to 11.0 elevation
- ② **Seed with yellow (Achillea millefolium) and grass (Festuca) seed**
 Seed with yellow (Achillea millefolium) and grass (Festuca) seed with a rate 2 lbs/1,000 sq. ft. (0.12 ac.)
 after final contours have been established.
 Cut spruce tree and place salvaged woody debris with low salt marsh, as directed by the project wetland specialist and engineer (OOOT).
- ③ **Cut spruce tree and place salvaged woody debris**
 Cut spruce tree and place salvaged woody debris with low salt marsh, as directed by the project wetland specialist and engineer (OOOT).



LIVE STAKE DETAILS

